2003 CEREAL GUIDE TO VARIETY AND PEST CONTROL

January 2003
Data from trials conducted by the Atlantic Field Crops Committee

Prince Edward Island Agriculture and Forestry

2-ROW BARLEY - 3 year average from three stations (2000-2002)

Cultivar	Relative Yield (%)	Maritime Multi Year Yield (t/ha)	Hartland NB Yield (t/ha)	Hartland NB Rank	Nappan NS Yield (t/ha)	Nappan NS Rank	Harrington PEI Yield (t/ha)	Harrington PEI Rank	Maturity (days after planting)	Lodging[1] (0-9)	Test Weight (kg/hL)
AC ALBERTE [HP]	88	3.94	4.19	6	4.73	6	3.16	6	91	4	74
AC QUEENS	106	4.76	4.60	3	5.90	2	4.21	1	93	5	67
AC STERLING	99	4.44	4.59	4	5.67	4	3.87	5	94	4	68
ISLAND [P]	105	4.73	4.89	1	6.16	1	4.10	3	92	4	67
BELMORE	103	4.64	4.47	5	5.81	3	4.17	2	91	3	68
SERENA	99	4.44	4.73	2	5.32	5	3.93	4	92	3	69
Average	**100**	**4.49**	**4.58**		**5.60**		**3.91**				

Cultivar	Distributor	Height (cm)	1000 Kernel Weight (g)	Threshability[3] (0-9)	Disease Resistance (0-9)[2] Net/Spot Blotch	Scald	Powdery Mildew	Fusarium Head Blight
AC ALBERTE [HP]	Semican	75	44	2	3	3	0	2
AC QUEENS	Meadowbrook	83	49	2	4	3	4	2
AC STERLING	SeCan	78	47	2	3	3	0	2
ISLAND [P]	McCardle	81	49	2	3	2	0	2
BELMORE	Thompson	73	47	1	3	2	3	2
SERENA	Semico	71	46	3	4	3	0	2

6-ROW BARLEY - 3 year average from three stations (2000-2002)

Cultivar	Relative Yield (%)	Maritime Multi Year Yield (t/ha)	Hartland NB Yield (t/ha)	Hartland NB Rank	Nappan NS Yield (t/ha)	Nappan NS Rank	Harrington PEI Yield (t/ha)	Harrington PEI Rank	Maturity (days after planting)	Lodging[1] (0-9)	Test Weight (kg/hL)
AC ALMA	99	4.97	5.04	3	6.06	4	4.34	5	94	2	63
AC LEGEND	103	5.14	4.78	6	6.48	1	4.73	1	93	3	63
AC MAPLE	102	5.12	4.77	7	6.12	3	4.60	2	94	3	63
AC WESTECH	101	5.06	5.31	2	6.18	2	4.58	3	94	2	63
CHAPAIS	99	4.95	4.81	5	5.74	5	4.21	7	92	3	62
EXCEL	98	4.90	4.85	4	5.62	6	4.46	4	94	3	64
STANDER	99	4.95	5.43	1	5.51	7	4.30	6	96	1	66
Average	**100**	**5.01**	**5.00**		**5.96**		**4.46**				

Cultivar	Distributor	Height (cm)	1000 Kernel Weight (g)	Threshability[3] (0-9)	Disease Resistance (0-9)[2] Net/Spot Blotch	Scald	Powdery Mildew	Fusarium Head Blight
AC ALMA	Grand Falls Milling	85	43	4	2	3	3	3
AC LEGEND	SeCan	75	43	6	3	2	4	3
AC MAPLE	Semican	70	39	6	3	2	3	4
AC WESTECH	Grand Falls Milling	87	39	2	2	3	2	2
CHAPAIS	SeCan	78	44	3	4	3	3	4
EXCEL	Meadowbrook	82	40	2	3	2	5	3
STANDER	Agricore	80	40	2	2	2	5	4

[1]0 = no lodging; 9 = fully lodged
[2]0 = resistant; 9 = highly susceptible
[3]0 = threshes well; 9 = threshes poorly
[H]Hulless: Hull is removed during threshing.
[P]Provisional: New variety that shows strong yield / agronomic traits.

COVERED AND HULLESS OAT - 3 year average from three stations (2000-2002)

Cultivar	Relative Yield (%)	Maritime Multi Year Yield (t/ha)	Hartland NB Yield (t/ha)	Hartland NB Rank	Truro NS Yield (t/ha)	Truro NS Rank	Harrington PEI Yield (t/ha)	Harrington PEI Rank	Maturity (days after planting)	Lodging[1] (0-9)	Test Weight (kg/hL)
COVERED											
AC RIGODON	98	4.97	4.52	4	6.66	4	5.27	3	103	4	47
CAPITAL	100	5.07	4.55	3	6.90	2	5.03	4	102	5	46
NOVA	99	4.98	4.59	2	6.72	3	5.38	2	102	5	49
TRIPLE CROWN	105	5.34	4.84	1	7.61	1	5.42	1	104	4	59
Average	**100**	**5.09**	**4.63**		**6.97**		**5.28**				
HULLESS											
AC BATON	99	3.35	3.14	2	4.74	2	2.90	1	104	4	56
AC ERNIE	101	3.41	3.22	1	4.94	1	2.90	1	105	3	59
Average	**100**	**3.38**	**3.18**		**4.84**		**2.90**				

Cultivar	Distributor	Height (cm)	1000 Kernel Weight (g)	Hull (%)	Seed color	Disease Resistance (0-9)[2] Fusarium Head blight	Disease Resistance (0-9)[2] Septoria
COVERED							
AC RIGODON	SeCan	116	36	24	White	2	6
CAPITAL	SeCan	112	31	22	White	2	6
NOVA	SeCan	115	32	24	White	2	6
TRIPLE CROWN	Coop Atlantic	113	32	24	White	2	6
HULLESS							
AC BATON	SeCan	114	32	3		3	6
AC ERNIE	C & M Seeds	112	27	2		3	6

SPRING WHEAT / FEED AND MILLING - 3 year average from four stations (2000-2002)

Cultivar	Relative Yield (%)	Maritime Multi Year Yield (t/ha)	Hartland NB Yield (t/ha)	Hartland NB Rank	Canning NS Yield (t/ha)	Canning NS Rank	Truro NS Yield (t/ha)	Truro NS Rank	Harrington PEI Yield (t/ha)	Harrington PEI Rank	Maturity (days after planting)	Lodging[1] (0-9)
FEED												
AC HARTLAND	103	4.65	4.63	1	3.29	3	5.80	3	4.45	1	107	2
AC NORBORO	100	4.53	4.35	2	3.41	2	6.62	1	3.50	2	104	2
AC WILMOT	99	4.45	4.02	4	3.59	1	6.20	2	3.29	3	105	2
BELVEDERE	97	4.39	4.10	3	3.17	4	5.74	4	3.23	4	106	2
Average	**100**	**4.51**	**4.28**		**3.37**		**6.09**		**3.62**			
MILLING												
AC HELENA	107	4.68	4.32	1	3.71	1	6.14	1	4.54	1	106	2
AC WALTON	97	4.25	3.89	3	3.37	2	5.83	2	3.88	2	107	2
SS MAESTRO	96	4.19	3.90	2	3.14	3	5.30	3	3.86	3	110	2
Average	**100**	**4.37**	**4.04**		**3.41**		**5.76**		**4.09**			

[1] 0 = no lodging; 9 = fully lodged
[2] 0 = resistant; 9 = highly susceptible

SPRING WHEAT / FEED AND MILLING - **3 year average from four stations (2000-2002)**

Cultivar	Use/Quality[4]	Distributor	Height (cm)	Test Weight (kg/hL)	1000 Kernel Weight (g)	Disease Resistance (0-9)[2]		
						Powdery Mildew	Fusarium Head Blight	Septoria
AC HARTLAND	Feed	Terio Seeds	100	75	34	0	5	3
AC NORBORO	Feed	Meadowbrook Nabuurs	96	75	34	2	5	3
AC WILMOT	Feed	CSGA	95	77	37	2	4	3
BELVEDERE	Feed	CSGA	98	75	34	2	5	3
AC HELENA	Strong Blend	Meadowbrook	99	78	37	1	4	3
AC WALTON	Strong Blend	SeCan	99	74	35	1	5	4
SS MAESTRO	Strong Blend	Minas	101	72	34	1	5	4

WINTER WHEAT / FEED, MILLING AND PASTRY - 3 year average from four stations (2000-2002)

Cultivar	Relative Yield (%)	Maritime Multi Year Yield (t/ha)	Hartland NB		Canning NS		Truro NS		Harrington PEI		Maturity[3] (days)	Lodging[1] (0-9)
			Yield (t/ha)	Rank	Yield (t/ha)	Rank	Yield (t/ha)	Rank	Yield (t/ha)	Rank		
FEED												
AC GRANDVIEW[P]	99	5.64	5.38	1	5.76	2	7.30	2	5.60	1	94	2
AC WINSLOE	96	5.50	4.16	2	6.09	1	7.31	1	4.74	2	92	2
MILLING												
AC SAMPSON[P]	98	5.62	4.89	1	5.84	1	7.23	1	5.72	1	93	3
FUNDULEA[OC]	90	5.14	4.17	2	5.40	2	7.19	2	4.79	2	93	1
PASTRY												
2540[R]	107	6.09	4.73	3	6.96	2	8.60	1	5.29	2	92	2
AC MACKINNON[W]	106	6.04	5.11	1	7.04	1	8.29	2	5.70	1	92	3
FREEDOM[R]	103	5.87	4.79	2	6.52	3	7.70	3	5.11	3	93	3
Average	**100**	**5.71**	**4.75**		**6.23**		**7.66**		**5.28**			

Cultivar	Use/Quality[4]	Distributor	Winter survival (%)	Height (cm)	Test Weight (kg/hL)	1000 Kernel Weight (g)	Disease resistance (0-9)[2]		
							Powdery Mildew	Fusarium Head Blight	Septoria
AC GRANDVIEW[P]	Feed	Nabuurs	92	111	78	35	1	5	4
AC WINSLOE	Feed	Nabuurs	91	90	76	38	1	5	4
AC SAMPSON[P]	Strong Blend	Meadowbrook	92	98	77	40	2	4	3
FUNDULEA[OC]	Medium Blend	Minas	86	96	79	38	3	5	3
2540[R]	Pastry	Pioneer	89	91	76	37	1	5	4
AC MACKINNON[W]	Pastry	C & M Seeds	91	102	76	38	2	5	4
FREEDOM[R]	Pastry	Minas	92	96	75	34	2	4	4

[1]0 = no lodging; 9 = fully lodged
[2]0 = resistant; 9 = highly susceptible
[3]Maturity: days from April 30
[4]The market preference is high for Self-Bakers, medium for Strong Blends and low for Medium Blends. Producers should aim for target grain protein content of 13.5 % which may be produced by applying one or more split applications of nitrogen during the growing season.

[S]Soft Red Wheat/ [W]Soft White Wheat
[H]Hulless: Hull is removed during threshing.

[P]**Provisional:** New variety that shows strong yield / agronomic traits.
[OC]**Outclassed:** Variety that is now being outperformed by newer ones and/or pedigreed seed is no longer available, and as a result, may be removed from the recommended list.

VARIETY DISTRIBUTORS

Variety	Distributor	Phone
2-ROW BARLEY		
AC ALBERTE	Semican Atlantic	(819) 362-8863
AC QUEENS	Meadowbrook Farms	(902) 628-9292
AC STERLING	SeCan Members*	1 800 764-5487
ISLAND	McCardle	(902) 887-2338
BELMORE	Thompson	(519) 676-5411
SERENA	Semico	(450) 799-3225
6-ROW BARLEY		
AC ALMA	Grand Falls Milling	(506) 473-2975
AC LEGEND	SeCan Members*	1 800 764-5487
AC MAPLE	Semican Atlantic	(819) 362-8823
AC WESTECH	Grand Falls Milling	(506) 473-2975
CHAPAIS	SeCan Members*	1 800 764-5487
EXCEL	Meadowbrook	(902) 628-9292
STANDER	Agricore	(403) 290-4904
COVERED OATS		
AC RIGODON	SeCan Members*	1 800 764-5487
CAPITAL	SeCan Members*	1 800 764-5487
NOVA	SeCan Members*	1 800 764-5487
TRIPLE CROWN	Coop Atlantic	(506) 858-6356
HULLESS OATS		
AC BATON	SeCan Members*	1 800 764-5487
AC ERNIE	C & M Seeds	(519) 343-2126

Variety	Distributor	Phone
SPRING WHEAT – FEED		
AC HARTLAND	Semences Tério Seeds	(506) 473-2763
AC NORBORO	Meadowbrook Farms	(902) 628-9292
	Nabuurs Seeds	(902) 583-2430
AC WILMOT	CSGA Members**	(613) 236-0497
BELVEDERE	CSGA Members**	(613) 236-0497
WINTER WHEAT - FEED		
AC WINSLOE	Nabuurs Seeds	(902) 583-2430
BORDEN	SeCan Members*	1 800 764-5487
SOFT WINTER WHEAT – PASTRY		
AC MACKINNON	C & M Seeds	(519) 343-2126
2540	Pioneer	(902) 538-3623
FREEDOM	Minas Seeds	(902) 582-3345
HARD SPRING WHEAT – MILLING		
AC HELENA	Meadowbrook Farms	(902) 628-9292
AC WALTON	SeCan Members*	1 800 764-5487
SS MAESTRO	Minas Seeds	(902) 582-3345
HARD WINTER WHEAT – MILLING		
AC SAMPSON	Meadowbrook Farms	(902) 628-9292
FUNDULEA	Minas Seeds	(902) 582-3345

*Most of the variety distributors in the Maritimes are SeCan Members.

**All the pedigreed seed grown in the Maritimes is grown by members of the Canadian Seed Growers' Association (CSGA).

The information contained in this publication is produced through the joint efforts of the New Brunswick and Prince Edward Island Departments of Agriculture, the Agriculture and Agri-Food Canada Crops and Livestock Research Centre, Charlottetown, the Nova Scotia Agricultural College and industry representatives.

SPECIAL NOTE: ALWAYS READ PESTICIDE LABEL BEFORE USING THE PRODUCT.

CEREAL FOLIAR FUNGICIDES			Winter wheat			Spring Wheat		Barley			Oat		
COMMON NAME	PRODUCT NAME*	FORMULATION	Powdery Mildew[2]	Septoria[3]	Rusts	Powdery Mildew[2]	Septoria[3]	Net Blotch	Spot Blotch	Scald	Septoria	Rusts	Pre-Harvest Interval (days)
Mancozeb	Ditahane M-45	WP	-	+	-	-		NR[4]			NR[4]		40
Propiconazole	Tilt	Su	+	+	+	+	+	+	+	+	+	+	45
Chlorothalonil	Bravo	F		+			+						30

[1]WP – wettable powder; Su – solution; F – flowable liquid
[2]Tilt – 2 weeks control
[3]Tilt – 4 weeks control ,Dithane M-45 – 2 weeks control, Bravo – 10 – 14 day control.
[4]NR – Not registered for this crop.

(+) Denotes effective control
(-) Non-effective control

CEREAL INSECT CONTROL*

APHIDS*	LEAF BEETLES*	ARMYWORMS*
DIMETHOATE (CYGON OR ROGOR) MALATHION Temperatures of about 21°C result in best aphid control.	MALATHION at least 7 days before harvest GUTHION at least 30 days before harvest	CARBARYL (SEVIN XLR PLUS) CHLORPYRIFOS (LORSBAN & PYRINEX) MALATHION METHOMYL (LANNATE) METHOXYCHLOR TRICHLORFON (DYLOX)

FOR ADDITIONAL INFORMATION ON INSECTS, SEE PUBLICATION 116 "DISEASES AND INSECT PESTS OF CEREALS IN THE ATLANTIC PROVINCES."

***Check labels for application methods & pre-harvest intervals.**

CEREAL SEED TREATMENT

		Wheat					Barley						Oats			All Cereals
COMMON NAME	PRODUCT NAME*	Loose smut	Seedling blight	Root rot	Powdery mildew	Septoria	Loose smut	Seedling blight	Scald	Root Rot	Net Blotch	Stripe	Covered Smut	Seedling Blight	Root Rot	Wireworms
Maneb	Agrox NM Agrox Flowable		+	+				+		+			+	+	+	
Carbathin + Thirm	Vitaflow 280	+	+	+			+	+		+			+	+	+	
Triadimenol	Baytan 30	+		+	+		+		+	+	+	+				
Difenoconazole+Metalaxyl-m	Dividend XL	+		+		+										
Tebuconazole	Raxil-FL	+	+	+			+	+		+	+	+				
Maneb+Lindane	Mergamma NM Co-op NN Dual Purpose		+	+				+		+			+	+	+	+
Carbathin+ Thiram + Lindane	Vitavax Dual Purpose	+	+	+			+	+		+	+		+	+	+	+

*List of product names is not exhaustive. (+) Denotes effective control

HERBICIDE SELECTION IN CEREALS NOT UNDERSEEDED

HERBICIDE EVALUATION	ANNUAL BROAD LEAVES											ANNUAL GRASSES					PERENNIALS					
0 = no control 9 = 90 - 100% control under ideal conditions	Chickweed	Cleavers	Corn Spurry	Hempnettle	Lady's Thumb	Lamb's Quarter	Mayweed	Mustards	Pigweeds	Ragweed	Wild Buckwheat	Barnyard Grass	Foxtail, Green	Foxtail, Yellow	Old Witch Grass	Wild oats	Bindweed, Field	Mint, Field	Quackgrass	Sow thistle	Thistle, Canada	Vetches
PREPLANT																						
[4]Glyphosate(ROUNDUP, ROUNDUP TRANSORB, TOUCHDOWN, VANTAGE, VANTAGE PLUS)																	7	8	9	9	9	0
PRE-HARVEST																						
[4,5]Glyphosate(ROUNDUP, ROUNDUP TRANSORB, TOUCHDOWN, VANTAGE, VANTAGE PLUS)																	7	9	9	8	9	-
POST-HARVEST																						
[4]Glyphosate(ROUNDUP, ROUNDUP TRANSORB, TOUCHDOWN, VANTAGE, VANTAGE PLUS)																	7	7	9	8	8	0
Amitrole (Amitrole-T, Cytrol)																	-	7	7	7	7	0
OATS, BARLEY, SPRING & WINTER WHEAT (SPRING APPLICATION ONLY)																						
2,4-D Amine	0	-	0	0	0	9	-	9	9	9	7	0	0	0	0	0	7	7	0	8	7	0
MCPA	0	-	7	8	0	9	-	9	9	9	0	0	0	0	0	0	7	0	0	8	8	5
[1]2,4-DB (EMBUTOX 625, COBUTOX, CALIBER 400)	0	-	0	0	0	9	-	7	9	9	7	0	0	0	0	0	8	0	0	9	9	-
[1]MCPB/MCPA (TROPOTOX PLUS)	0	-	0	7	0	9	-	9	9	8	0	0	0	0	0	0	8	0	0	9	9	-
[2]Thifensulfuron/Tribenuron (REFINE EXTRA)	9	5	8	9	9	9	8	8	9	0	9	0	0	0	0	0	0	-	0	8	8	5
[2]Thifensulfuron/Tribenuron + 2,4-D Amine (REFINE EXTRA + 2,4-D Amine)	9	-	9	9	9	9	8	9	9	9	9	0	0	0	0	0	0	-	0	8	8	5
[2]Thifensulfuron/Tribenuron + MCPA (REFINE EXTRA + MPCA)	9	-	9	9	9	9	8	9	9	9	9	0	0	0	0	0	0	-	0	8	8	7
[2]Thifensulfuron/Tribenuron + Bromoxynil/MCPA (REFINE EXTRA + BUCTRIL-M)	7	-	8	9	9	9	8	9	9	9	9	0	0	0	0	0	6	-	0	6	6	-
Dicamba (BANVEL II)	0	-	9	7	9	9	8	7	9	9	9	0	0	0	0	0	8	-	0	8	8	5
[6]MCPA/Mecoprop/Dicamba (TARGET)	0	8	9	8	8	9	8	9	9	9	9	0	0	0	0	0	8	-	0	8	8	-
Dicamba/MPCA (DYVEL)	0	5	9	8	9	9	8	9	9	9	9	0	0	0	0	0	8	-	0	8	8	-
Bromoxynil (PARDNER)	0	-	0	0	9	9	8	8	8	8	9	0	0	0	0	0	6	-	0	6	6	-
Bromoxynil/MCPA (1:1)(BUCTRIL-M)	0	-	0	7	9	9	8	9	8	9	9	0	0	0	0	0	6	-	0	6	6	-
[3,6]Mecoprop (COMPITOX, MECOPROP)	8	8	7	-	-	7	-	-	-	-	-	0	0	0	0	0	-	-	0	-	-	3
BARLEY & WHEAT, SPRING																						
Diclofop-methyl (HOE-GRASS 284)	0	-	0	0	0	0	0	0	0	0	0	8	8	8	8	9	0	0	0	0	0	0
Dichloroprop/2,4-D (ESTAPROP, TURBOPROP)	0	-	0	6	8	9	-	9	9	9	8	0	0	0	0	0	6	-	0	8	8	0
Difenzoquat (AVENGE 200C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
Tralkoxydim(ACHIEVE)	0	-	0	0	0	0	0	0	0	0	0	2	9	9	-	9	0	0	0	0	0	0
[7]Clopyralid (LONTREL)	-	-	-	-	-	-	8	-	-	-	8	0	0	0	0	0	-	-	0	9	9	9
[7]Clopyralid/MCPA / 2,4-D (LONTREL + MCPA or 2,4-D)	-	-	-	-	-	9	8	-	-	-	8	0	0	0	0	0	-	-	0	9	8	9
Stampede CM (propanil/MCPA)	7	-	-	-	8	9	-	9	9	-	8	-	8	8	-	2	-	-	-	-	-	-
WINTER WHEAT - FALL APPLICATION																						
Bromoxynil (PARDNER)	0	-	0	0	9	9	8	8	8	7	9	0	0	0	0	0	6	0	0	6	6	-
Bromoxynil/MCPA (1:1)(BUCTRIL-M)	0	-	0	6	9	9	8	9	8	9	9	0	0	0	0	0	6	0	0	6	6	4

(1) Recommended application on underseeding of alfalfa (2,4-DB) and clover (MCPB/MCPA).
(2) Caution: REFINE EXTRA is not registered for Belvedere spring wheat or leger barley. REFINE EXTRA + 2,4-D is not registered for oats.
(3) Not registered for winter wheat application.
(4) Check ROUNDUP, TOUCHDOWN, VANTAGE, VANTAGE PLUS labels for recommended surfactants. Annual broad broad leaved and annual grasses will be controlled only if present at application.
(5) Do not apply glyphosate containing products preharvest on crops grown for seed.
(6) Cleaver control obtained only at highest recommended rate of application.
(7) Do not grow crops such as peas, beans (any type), potatoes or vegetable crops until two years after clopyralid application.